

What is claimed is:

1. A method for accessing data in a file stored on at least one of a plurality of removable data storage media in an automated storage library such that peripheral storage drives in the library are transparent to a host processor, the data storage media storing a plurality of volumes, one of the volumes including the file to be accessed, the automated storage library including a plurality of internal peripheral storage drives, a plurality of data storage media storage cells, automated means for transferring a data storage medium between the plurality of internal peripheral storage drives and the plurality of storage cells, and a controller coupled to each of the plurality of internal peripheral storage drives, the automated means, and the host processor, the controller storing the location within the library of each of the plurality of volumes, the method comprising the machine executed steps of:
  - the controller receiving a request from a host processor to access a file on a volume in the library, the request specifying the file, the volume, and the library;
  - the controller determining the location within the library of the volume specified in the request;

the controller allocating at least one of the internal peripheral storage drives;  
 the automated means transferring the volume specified in the request to said at least one of the internal peripheral storage drives which has been allocated and mounting said volume therein; and  
 the host processor, unaware in which of the internal peripheral storage drives that the volume specified in the request has been mounted read/write accessing data in the file specified in the request via communications routed to said at least one of the internal peripheral storage drives by the controller.

2. The method of claim 1 wherein the request is in a format used by the host processor to access a file on a data storage medium mounted in a peripheral storage drive coupled to the host processor, with a specification of a peripheral storage drive coupled to the host processor replaced with a specification of the library and a specification of a subdirectory in a peripheral storage drive coupled to the host processor replaced with a specification of a volume in the library.

3. An automated storage library capable of allowing access to data in a file stored on at least one of a plurality of removable data storage media therein such that peripheral storage drives in the library are transparent to a host processor, the data storage media storing a plurality of volumes, one of the volumes including the file to be accessed, the automated storage library comprising:

a plurality of internal peripheral storage drives;  
 a plurality of storage cells;  
 automated means for transferring a data storage medium between the plurality of internal peripheral storage drives and the plurality of storage cells; and  
 a controller coupled to each of the plurality of internal peripheral storage drives, the automated means, and the host processor, the controller storing the location within the library of each of the plurality of volumes, the controller including machine-executed means for:  
 receiving a request from the host processor to access a file on a volume in the library, the request specifying the file, the volume, and the library;  
 determining the location within the library of the volume specified in the request;  
 allocating at least one of the internal peripheral storage drives;  
 instructing the automated means to transfer the volume specified in the request to said at least one of the internal peripheral storage drives which has been allocated and to mount said volume therein;  
 and  
 allowing the host processor, unaware in which of the internal peripheral storage drives that the volume specified in the request has been mounted to have read/write access to data in the file specified in the request by routing communications between the host processor and said at least one of the internal peripheral storage drives.

4. The automated storage library of claim 3 wherein the request is in a format used by the host processor to access a file on a data storage medium mounted in a peripheral storage drive coupled to the host processor, with a specification of a peripheral storage drive coupled to a host processor replaced with a specification of the library and a specification of a subdirectory in a peripheral storage drive coupled to the host processor replaced with a specification of a volume in the library.

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